

**IN THE CLAIMS:**

*This listing of claims will replace all prior versions and listings of claims in the application.*

**Listing of Claims:**

1. (Currently Amended) A variable hand switch (~~100A, 100B, 200~~) applied to chemical injection control of an injector head for injecting a chemical to a patient, controlling an amount of light emitted from light projecting means, receiving the light with the amount changed, by light receiving means, and transmitting information of the received light to a body of an apparatus the injector head apparatus, comprising:

a wall (~~43, 45, 201~~) arranged opposite to said light projecting means (~~30A, 220~~) and said light receiving means (~~30B, 230~~); and

a light amount changing area (~~51, 52, 201a~~) provided on said wall (~~43, 45, 201~~) for changing the amount of light projected from said light projecting means (~~30A, 220~~), in accordance with relative movement between said wall (~~43, 45, 201~~) and said light projecting means (~~30A, 220~~) and said light receiving means (~~30B, 230~~).

2 (Currently Amended) A variable hand switch (~~100A, 100B~~) applied to chemical injection control of an injector head for injecting a chemical to a patient, controlling reflectance of light emitted from light projecting and receiving means (~~30A, 30B~~) and transmitting change in reflectance to a body of the injector head apparatus an apparatus, comprising:

a movable wall  $[(43, 45)]$  provided continuously movable between a first position and a second position, and arranged opposite to said light projecting and receiving means (~~30A, 30B~~); and

a light reflecting area  $[(51, 52)]$  provided on a surface of said movable wall  $[(43, 45)]$  facing said light projecting and receiving means (~~30A, 30B~~) having at least two areas providing different reflectance of light projected from said light projecting and receiving means (~~30A, 30B~~), along with movement of said movable wall  $[(43, 45)]$ .

3. (Currently Amended) The variable hand switch according to claim 2, wherein

said reflecting area [[(51)]] has a colored area with gradation, in which color tone changes gradually along the direction of movement of said movable wall.

4. (Currently Amended) The variable hand switch according to claim 2, wherein said reflecting area [[(52)]] includes a first colored area and a second colored area having darker colored area than the first colored area, arranged along the direction of movement of said movable wall.

5. (Currently Amended) The variable hand switch according to claim 2, wherein said movable wall [[(43, 45)]] is formed of a hanging wall extended, from a pressing area member [[(42, 44)]] positioned on a surface side of said variable hand switch, in the direction of pressing; and

the first position of said movable wall [[(43, 45)]] is selected when said pressing area member [[(42, 44)]] is not pressed, and the second position of said movable wall [[(43, 45)]] is selected by gradually pressing said pressing area member [[(42, 44)]].

6. (Currently Amended) The variable hand switch according to claim 2, wherein said pressing area member [[(42, 44)]] has means [[(60)]] for applying elastic force for applying an elastic force acting in a direction opposite to the direction of pressing, when said pressing area member [[(42, 44)]] is pressed in the pressing direction.

7. (Currently Amended) A variable hand switch [[(200)]] applied to chemical injection control of an injector head for injecting a chemical to a patient, controlling an amount of light emitted from light projecting means, receiving the light with the amount changed, by light receiving means, and transmitting information of the received light to a body of an apparatus the injector head apparatus, comprising:

a movable wall [[(201)]] provided continuously movable between a first position and a second position, and arranged between and opposite to said light projecting means [[(220)]] and said light receiving means [[(230)]]; and

a light transmittance changing area [[(201a)]] for changing amount of transmittance of light projected from said light projecting means [[(220)]] along with the movement of said movable wall [[(201)]].

8. (Currently Amended) The variable hand switch according to claim 7, wherein said light transmittance changing area [[(201a)]] has a colored area with gradation, in which color tone changes gradually along the direction of movement of said movable wall.

9. (Currently Amended) The variable hand switch according to claim 7, wherein said light transmittance changing area [[(201a)]] includes a first colored area and a second colored area having darker colored area than the first colored area, arranged along the direction of movement of said movable wall.

10. (Currently Amended) The variable hand switch according to claim 7, wherein said movable wall [[(201)]] is formed of a hanging wall extended, from a pressing area member [[(42, 44)]] positioned on a surface side of said variable hand switch, in the direction of pressing; and  
the first position of said movable wall [[(201)]] is selected when said pressing area member [[(42, 44)]] is not pressed, and the second position of said movable wall [[(201)]] is selected by gradually pressing said pressing area member [[(42, 44)]].

11. (Currently Amended) The variable hand switch according to claim 7, wherein said pressing area member [[(42, 44)]] has means [[(260)]] for applying elastic force for applying an elastic force acting in a direction opposite to the direction of pressing, when said pressing area member [[(42, 44)]] is pressed in the pressing direction.+

12. (New) The variable hand switch according to claim 1, wherein two sets of switches formed of said wall and said light amount changing area area arranged in parallel.

13. (New) The variable hand switch according to claim 1, further comprising an air bag for transmitting injection pressure of injecting a chemical to the patient.